



Jin André



### Take a hike!

left: Hikers look down on spectacular Piute Gorge. 4-wheel drive is recommended on road to trailhead- see page 7 for directions.  
above: Teutonia Peak trail offers a 3-mile round-trip hike through a Joshua tree forest, and rewards hikers with views over Shadow Valley. The trailhead is easy to reach. It's on Cima Road just 12 miles south of I-15.

## Mary & Minerva: apostles of the cacti

By Hilary Clark, Park Ranger  
IT WAS AN UNUSUAL TIME AND PLACE to find a librarian and a Mississippi belle. The Mojave Desert in the Great Depression years of the 1930s was a desolate place—sparsely populated by miners, occasional botanists, and a few adventurers and loners. But for two exceptional women, Minerva Hoyt and Mary Beale, there were irresistible attractions: the howls of coyotes, star-filled night skies, and desert plants—hundreds of majestic, fascinating, largely unexamined plants. And the Mojave offered another perhaps equally appealing gift—sanctuary from grief, sickness, and ordinary lives.

Hoyt and Beale traversed the Mojave and Sonoran Deserts during the tumultuous Depression era. Both were non-



Minerva Hoyt played a crucial role in the establishment of Joshua Tree National Park.

conformists in that they were unwed women traveling and living alone in a harsh environment. Hoyt, a southern belle from Mississippi, is remembered for her role in the establishment of Joshua Tree National Monument.

Beale, a librarian from Riverside, Calif., ventured into the desert after learning she had tuberculosis and regained her health while working to identify plants that grow in the east Mojave Desert.

Plants became the vehicle through which both Hoyt and Beale raised awareness about the desert. At the time, Joshua trees were used for firewood and their seeds for cooking oil, and they were viewed by many as having no aesthetic value. Typical was author Joseph Smeaton Chaste's 1919 description of the Joshua tree as "having a nightmare effect even in the broad daylight: at the witching hour it can almost be infernal." Hoyt was indefatigable in her efforts to change this negative perception of the desert. She put together an exhibit of (continued on page 3)

### Welcome to Mojave

Whether this is your first visit to Mojave or your tenth, you will find much to explore. Mojave National Preserve encompasses a vast area of the Mojave Desert ecosystem with opportunities to experience a variety of desert environs, including sand dunes, Joshua tree forests, cactus gardens, lava flows and cinder cones, quiet canyon hikes, backcountry road trips by four-wheel drive, and visits to old mines and military outposts.

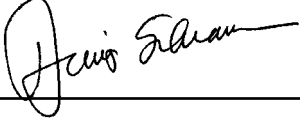
Rains were sparse earlier in the winter, so we're not expecting a spectacular desert bloom, but perhaps we'll all be surprised! Spring is still a great time to visit. Longer days provide more time for exploring and setting up camp before dark, yet the hot days of summer are not yet upon us. Stay at one of the campgrounds or pick a backcountry campsite, and you will experience the dark night sky with an amazing array of stars. Most of us don't get to see this anymore, so enjoy it while you're here. The rangers at Kelso Depot or Hole-in-the-Wall will be glad to describe camping options.

The renovated Kelso Depot Visitor Center opened in October 2005 and continues to be a popular destination for a Southern California day trip. Plans are underway to begin serving lunches at the Depot's famous lunch counter. I expect restaurant service to begin in fall 2007.

Over 1,000 miles of dirt roads await desert explorers in street-legal vehicles. Many roads that were damaged by last summer's storms have been repaired and graded, providing access to old mining sites, springs, and roadside camps. Some routes still require high-clearance vehicles, and road conditions change rapidly, so check with a ranger before heading out.

I encourage you to experience the tremendous diversity of the desert by taking short walks in various habitats. Mojave continues to upgrade its trail system, and three trail development and improvement projects are planned for this spring at Hole-in-the-Wall, Mid Hills, and Piute Springs. Suggested hikes are listed on page 7 of this guide.

If you would like to learn more about park resources or management activities, stop by Kelso Depot or Hole-in-the-Wall and talk to the rangers, visit our website, or call the headquarters information desk. Websites and phone numbers are listed on page 2.



### 3 Ode to Kelso

Herbert Klepper worked for Union Pacific Railroad at Kelso, Calif., during World War II. Klepper's move from a Nebraska farm to the Mojave Desert inspired him to write this poem.

### 3 Bus tours from Barstow to Kelso

The Barstow-Kelso Heritage Railroad is offering spring and summer bus tours to Kelso Depot, leaving from Barstow's historic Harvey House train station.

### 4 Mojave's mule deer

Studies are planned to learn more about how deer use natural and artificial water sources in the Providence and New York mountains.

Contact information, weather...2

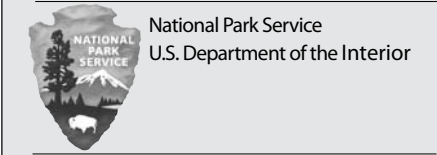
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Mojave National Preserve

Established in 1994, Mojave National Preserve encompasses 1.6 million acres ranging in elevation from 800 feet near Baker to 7,929 feet at Clark Mountain. Here, three of the four major North American deserts meet. Although most of the park lies in the Mojave Desert, the southeast section grades into Sonoran Desert, and elements of the Great Basin Desert are found at higher elevations east of the Granite, Providence and New York Mountains.

Superintendent  
Dennis Schramm

Chief Ranger  
Denny Ziemann

Chief, Resource Interpretation (Acting)  
Linda Slater

Contact Information

Mailing Address  
2701 Barstow Road  
Barstow, CA 92311

E-mail  
Click on “Contact Us” at [nps.gov/moja](http://nps.gov/moja)

Park Headquarters  
760 252-6100

Fax Number  
760 252-6174



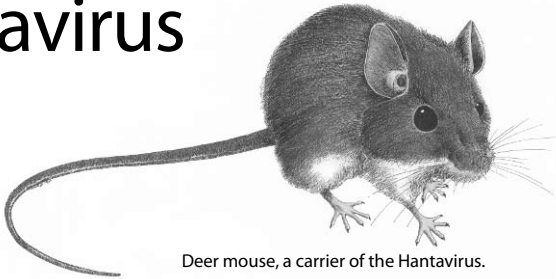
## Kelso Depot Visitor Center

Built in 1924, the Kelso Depot was used as a train station, employee housing, and restaurant by the Union Pacific Railroad. The building shut down completely in 1985.

Recently renovated, the Depot has re-opened as the new Visitor Center for Mojave National Preserve. The building now houses an information desk, bookstore, and exhibits describing the natural world of the desert and the people who have lived and worked here.

Kelso Depot Visitor Center is open from 9 a.m. to 5 p.m. daily except Christmas Day.

## Hantavirus Alert



Deer mouse, a carrier of the Hantavirus.

Hantavirus pulmonary syndrome is a respiratory disease caused by a virus shed by deer mice and other rodents. The disease is extremely rare, but very serious: there is no cure, and nearly half of the known patients have died.

The risk of exposure is highest in rural areas, especially in abandoned cabins where rodents are present. Hantavirus has now been reported in 31 states.

The disease spreads to people when rodent urine, droppings, or nesting materials are stirred up. You may be infected by breath-

ing in the virus, touching your mouth or nose after handling contaminated materials, or from a rodent bite.

Symptoms include fatigue, fever and muscle aches, followed by coughing and shortness of breath as the lungs fill with fluid.

To avoid exposure to hantavirus, use extreme caution when exploring abandoned buildings. If you see droppings or nests, stay away. Don't camp in areas where rodent droppings are present.

### Temperatures: Average high/low in degrees Fahrenheit

	Granite Mountain Elevation 4,200 feet	Zzyzx Elevation 930 feet
January	50/36	61/34
February	54/38	69/40
March	59/41	74/46
April	68/48	83/53
May	75/54	93/61
June	85/63	103/70
July	90/67	109/77
August	89/66	107/75
September	83/61	100/68
October	73/52	77/55
November	59/41	73/43
December	50/34	62/34
Average Annual Precipitation	8.5 inches	3.37 inches

## Information

Entrance Fee  
There is currently no entrance fee for Mojave National Preserve.

Dates and Hours of Operation  
Mojave National Preserve never closes. Two information centers offer orientation and maps.

Kelso Depot Visitor Center  
Located 35 miles south of Baker on Kelbaker Road. Open daily 9 a.m. to 5 p.m., except Christmas Day. Phone 760 252-6108.

Hole-in-the-Wall Information Center  
Located near Hole-in-the-Wall Campground. Winter hours (October through April) Wednesday through Sunday from 9:00 a.m. to 4:00 p.m. Summer hours (May through September) Friday through Sunday, 9:00 a.m. to 4:00 p.m. Phone 760-928-2572.

Gasoline  
There are no gas stations in the park, so be sure to fill up before entering. Gas is sold along I-40 at Needles, Fenner, and Ludlow, along I-15 at Baker, Cima Road, and Primm, and along U.S. 95 at Searchlight and at the Nevada 163 junction south of Cal Nev Ari.

Water  
Always carry plenty of drinking water in your car and especially when hiking. The only drinking water available within the park is at Kelso Depot Visitor Center, Hole-in-the-Wall and Black Canyon Campgrounds, and at the Providence Mountains State Recreation Area (Mitchell Caverns) Campground.

Lodging  
There are no motels within the park. Lodging can be found in Barstow, Nipton, Ludlow, Needles, Baker, and Twentynine Palms, California, and in Primm and Searchlight, Nevada.

Permits  
Recreation Permit \$50.00  
A Recreation Permit is required for all organized events, including school groups, hiking clubs, jeep tour groups and scouting groups, or for any group of more than 15 individuals or 7 vehicles. Proof of insurance may be required. For more information, call (760) 252 6107, or click on “Permits” at [nps.gov/moja](http://nps.gov/moja).

Special Use Permit \$200.00  
A Special Use Permit is required for large, organized events and commercial activities such as filming. Proof of insurance and posting of a bond may also be required. For more information, call (760) 252-6107, or click on “Permits” at [nps.gov/moja](http://nps.gov/moja).

Weather  
Expect wide fluctuations in day-night temperatures, seasonal strong winds, and bright, clear skies. At low elevations, temperatures above 100 degrees F. typically begin in May and can last into October. Annual precipitaton ranges from 3.5 inches at low elevations to nearly ten inches in the mountains. Most rain falls between November and April; summer thunderstorms may bring sudden heavy rainfall and flash flooding. Strong winds occur in fall, late winter, and early spring.

Telephone & Web Directory  
Emergency 911  
Emergency: Interagency Communications Center 909-383-5651  
San Bernardino County Sheriff - Baker 760-256-1796  
- Needles 760-326-9200

Mojave National Preserve  
Barstow Headquarters Office 760-252-6100  
Hole-in-the-Wall Fire Center 760-928-2573  
Hole-in-the Wall Information Center 760-928-2572  
Kelso Depot Visitor Center 760-733-4456  
Kelso Ranger Station 760-733-4011

Nearby parks  
Anza Borrego Desert State Park 760-767-4205  
Calico Ghost Town 760-254-2122  
Death Valley National Park 760-786-2331  
Joshua Tree National Park 760-367-5500  
Lake Mead National Recreation Area 702-293-8990  
Mitchell Caverns/Providence Mountains State Park 760-928-2586

Mojave National Preserve [www.nps.gov/moja](http://www.nps.gov/moja)  
National Park Service [www.nps.gov](http://www.nps.gov)  
Bookstore (Western National Parks Association) [www.wnpa.org](http://www.wnpa.org)  
CSU Desert Studies Center (Zzyzx) <http://biology.fullerton.edu/facilities/dsc/zzyzx.html>  
Bureau of Land Management [www.blm.gov](http://www.blm.gov)  
California Desert [www.californiadesert.gov](http://www.californiadesert.gov)  
Leave No Trace [www.lnt.org](http://www.lnt.org)  
Mitchell Caverns/Providence Mtns. State Park [www.calparksmojave.com/providence](http://www.calparksmojave.com/providence)  
Wilderness System information [www.wilderness.net](http://www.wilderness.net)  
Federal government jobs [www.usajobs.opm.gov](http://www.usajobs.opm.gov)  
Desert USA wildflower reports [www.desertusa.com/wildflo/wildupdates](http://www.desertusa.com/wildflo/wildupdates)  
Desert Tortoise Information & Science [www.deserttortoise.gov](http://www.deserttortoise.gov)

# Mary & Minerva

(continued from page 1)

desert plants, reptiles, birds and other wildlife. Her collections gained national recognition at botanical exhibitions in New York and Boston. Soon, overseas institutions were requesting Hoyt’s exhibits.

Meanwhile, Mary Beale hiked the Providence, New York and Clark Mountains, now part of Mojave National Preserve, collecting and photographing plants. Mary’s background was not in botany. Armed with a dictionary and Willis Jepson’s Manual of Flowering Plants of California, she taught herself the intricacies of plant classification. Beale contributed over 2,000 plant specimens to what is now the Jepson Herbarium Library at University of California, Berkeley. She developed a professional and personal friendship with Jepson, a premiere botanist, who sometimes accompanied Mary on her hikes. Carrying three cameras, Beale would spend the entire day photographing plants, with only bread, dates, grapefruit, and chia cake (made from the seeds of the native chia plant) for sustenance. Her reputation spread to miners in the area, who would bring her flowers

to identify, sometimes leading to the discovery of previously unknown plants.

While Beale was documenting plant specimens, Hoyt was politicking for the preservation of what is now Joshua Tree National Park. In 1930, she approached National Park Service Director Horace Albright, who turned down her request, saying it was not a priority. She would have better luck with the next administration. After a relentless battle on the part of Hoyt, Joshua Tree National Monument was established under President Franklin Roosevelt.

Hoyt’s and Beale’s lives parallel each other in resiliency and tenacity. Their names were immortalized on plaques: Beale at the Providence Mountain State Recreation Area in 1952, and Hoyt near Inspiration Point at Joshua Tree National Park in 1955. Minerva Hoyt and Mary Beale’s work led to a legacy of protection and understanding of lands at Joshua Tree National Park and Mojave National Preserve. But their real contribution is a realization of the enduring value of the desert.

# At home in Kelso: Rangering in the Mojave

by Christine Schlegel, Park Ranger

JULY 2007 MARKS RANGER TIM DUNCAN’S tenth anniversary as a Park Ranger at Mojave National Preserve. A Georgia native, Tim’s first National Park Service experience brought him to Alaska, where he spent seven years working at Wrangell-St. Elias, and Glacier Bay, and Kenai Fjords. After Alaska, he ventured to Manassas National Battlefield Park in Virginia and four years later, to the Mojave Desert, where he is now stationed at the remote outpost of Kelso.

Ranger Duncan has found his niche in this part of the Mojave. Tim says he most enjoys “the uncrowdedness of it...the wide open space...the history and ambience of the railroad.” He has adapted well to life at Kelso. “One of the few things I miss is attending contra-dance functions; contra is the original Celtic form of country folk or square dancing...but when I go to Vegas and spend two hours, I’ve had enough.”

When Ranger Duncan tires of Vegas, he finds both solace and sometimes dinner in his garden. An avid gardener, he grows peanuts, corn, okra, peas, tomatillos, beets, radishes, zucchini, cucumbers, squash, and a wide variety of flowers. He cans and freezes, “and I give away a lot, and...eat more!”

Away from Kelso, Tim turns to another favorite hobby, researching his genealogy. He has made numerous trips to Scotland where a great portion of his ancestry originates. Tim has traveled by train extensively and is an incurable railroad buff, researching, riding, and even modeling trains.

Hobbies help Tim unwind from his enjoyable but at times stressful job. As a Law Enforcement Ranger, Tim is authorized to perform the full gamut of law enforce-



Rangers Tim Duncan and Hilary Clark arm wrestle at the Kelso Depot Visitor Center.

ment duties, including making arrests, carrying a firearm, and performing investigations. He is basically the equivalent of a city police officer or county sheriff.

Speeding and the resulting roll-over accidents are ongoing problems that Ranger Duncan deals with. He says that many of these accidents are avoidable tragedies. It seems that people wait until the last minute when departing on a trip. “You can’t get there before you leave,” says Duncan. “Self-responsibility is what we easily throw out the window at times...everyone has an excuse, but we are all responsible for operating our vehicle properly...for knowing what the driving laws are, the things we learned when we were sixteen-years-old, ...and then applying those things.”

Although his primary job is law enforcement, Tim’s duties include public outreach, resource management, emergency medical services, and even responding to wildland fires. “There are just such a small percentage of park visitors that have trouble following the rules...ninety-eight percent of the public respect what rangers do and the Preserve that we are here to protect...and they greatly value that.”


Ok now, is anyone ready for another round of arm wastlin’?

## Protect the Desert Tortoise

Do not pick up or harass a tortoise: observe it from a distance. Tortoises store water in their bladders and can re-absorb the liquid during a drought. When frightened, they frequently empty their bladders. Loss of this important water source can be fatal.

Check under your vehicle before driving away. Tortoises enjoy the shade under your car on a hot day.

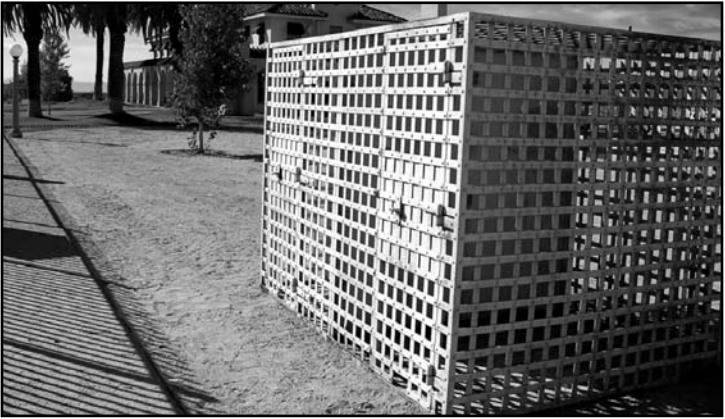
Observe posted speed limits, and be especially watchful during and after rainstorms, when tortoises often enter roadways to drink from puddles.



Keep vehicles on established roads only. Vehicles will crush tortoise burrows, killing the tortoises and eggs within.

Do not release captive tortoises. They may carry diseases that can be transmitted to wild tortoises. Instead, turn them in to a licensed tortoise rescue center. For information, call 760-252-6101.

## Jail Returns to Kelso



The Kelso jail is now located on the grounds of the Kelso Depot Visitor Center.

After several decades at two locations in the Barstow, California area, the Kelso jail has come home. Barstow resident Kay Mahoney and her husband acquired the jail about 12 years ago, when officials at the Health Department in Barstow wanted it removed from their grounds. Mahoney recently donated it to Mojave National Preserve. Bureau of Land Management maintenance foreman Mike Trost and his crew assisted in the move by loading the jail onto a flatbed trailer for transport to Kelso.

The jail is a two-stall cage made out of metal strapping. A shade roof was built over the jail, and later, corrugated tin walls were added around the cage. World War II-era Kelso resident Richard Klepper remembers the jail arriving in Kelso about 1944. “Before that, the constable used a reefer car for a jail,” Klepper said. “In those days, Kelso was loaded with drunks from both the Kaiser (Vulcan) Mine and Union Pacific.” A night spent in the Kelso jail would certainly cause one to sober up.

## Ode to Kelso

Herbert Klepper moved his family to Kelso, Calif., from Nebraska for the health of his son, Richard. The boy had asthma, and their doctor recommended a move to a dry climate. Richard’s two older brothers were already living at Kelso and working for Union Pacific Railroad. The Klepper children moved to Kelso in July 1943, and Herbert arrived some months later.

For Herbert Klepper, the adjustment to desert life was difficult. On September 11, 1944, he sent this poem to his wife, Helen, still in Nebraska.



Janice, Lee, & Joe Klepper at home. The Klepper family lived in one of a row of houses on the north side of Kelso Cima Road.

[Untitled]

by Herbert Klepper

I don’t long for California  
Where the palms and lizards grow,  
Or for mountain peaks above me  
Covered with a robe of snow.  
I don’t crave to smell the greasewood  
Or the purple sage or sand,  
But I’d long to rest my spirit  
In a country made of land.  
Give me not the rocks and deserts,  
Rattlesnakes, and horny toads.  
Show me not the tree of Joshua,  
But an elm tree by the road,  
Not the desert where the cactus  
Cries out for a drop of rain:  
Finally bows with prayers unanswered;  
To the skies she prays in vain.  
Take the winds of California  
With blow sand fill the air,  
Give me back my old Nebraska-  
Let that be my every prayer.  
Give me back the welcome robin  
Or the cardinal’s breakfast call.  
You can have your California,  
Lizards, horned toads, snakes and all!  
Let me make my bed forever  
In a field of goldenrod;  
Let me plant my feet forever  
On a plain of native sod.  
Let me leave this desolation  
Where man never should have trod;  
Take me back to old Nebraska  
Where a man can find his God.



# Mojave’s mule deer

EVERY YEAR, HUNTERS KILL 30 TO 40 BUCKS in the Providence and New York mountains of Mojave National Preserve. These animals are the descendents of nine bucks and 31 does released in 1948. No one knows how many deer live in the area today, but the annual take through hunting has generally fluctuated between 20 and 40 animals. Although there are no records showing the presence of deer in the area before the 1948 release, a native herd is present nearby at the Spring Mountains in Nevada, so it’s certainly possible.

Recent actions associated with the retirement of grazing leases have raised concerns about the health and viability of the Mojave deer herd. During the ranching era, wells and water tanks were developed for cattle that were also used by deer. As the grazing leases were retired, water developments were not maintained and in many instances windmills, pumps, and other equipment have been removed by the ranchers. This led to concerns that less water would be available for deer and other wildlife. In reaction, California Department of Fish and Game (CDFG), in cooperation with the National Park Service (NPS), proposed to retrofit 12 ranching water developments into wildlife guzzlers.

The National Park Service conducted an analysis of the proposal, called an Environmental Assessment. In the analysis, the NPS recognized that there is little factual information on the size of deer populations and their dependence on artificial water sources. As a result, the NPS and CDFG have developed a new plan. Four wells and associated tanks will be reactivated. Scientists will study how deer use these artificial water sources and learn what happens when they are turned off.

During a December 2006 field tour with staff from the NPS, CDFG, Nevada De-



A mule deer pays a night visit to a stock tank.

partment of Wildlife, and University of Nevada, Reno (UNR), key management issues and research questions were developed. A pilot study to be conducted by UNR will begin this spring with radio-collaring of up to nine mule deer. Information gleaned from this study will be used to develop a more detailed research plan.

Meanwhile, park staff and volunteers are continuing an annual assessment of natural water sources begun in 2005. They visit over 100 springs each fall to determine if they are producing enough water to be used by wildlife. Over time, this study will show how water availability is affected by annual rainfall and will provide data relating the location of springs with reliable water to deer habitat.

You can review documents and follow progress of this research at the Mojave National Preserve website. Click on Nature & Science, Research.

## Bus tours from Barstow to Kelso offered



Bus tours from Barstow to Kelso start at the Harvey House, known as the Casa del Desierto.

On May 5, 2007, the Barstow-Kelso Heritage Railroad will begin offering a Saturday bus tour from Barstow to the Kelso Depot in Mojave National Preserve.

Busses will leave Barstow’s Casa del Desierto Harvey House at 10 a.m. and return at 4 p.m. A park ranger will ride along on the tour to share information and present a video introduction to Kelso. Tours will include a free BBQ lunch at Kelso Depot, a tour, and plenty of time to look at exhibits. On the way home, busses will stop at the Amboy ghost town on Historic Route 66. Tickets are \$45; a discount for children and seniors is available.

Both the Route 66 Museum and Western American Railroad Museum, located inside the Barstow Harvey House,

will be open before and after the tours, so come an hour early to visit these two museums.

The Barstow-Kelso Heritage Railroad is a partnership of government and non-profit organizations whose mission is to establish a heritage rail tour from the Barstow Harvey House to the Kelso Depot Visitor Center. While the train is not yet a reality, the partnership is operating bus tours to establish and build support for a tour service linking the two historic train stations.

The tours are tentatively scheduled to continue through August 25. Tickets can be purchased in advance. For more information, call the Barstow headquarters office of Mojave National Preserve at (760) 252-6101.

# Dirt Road Driving

## Rules of the Road

All vehicles operating within Mojave National Preserve must be street-legal in accordance with California DMV requirements. This includes current registration and tags, lights and turn signals, and valid insurance. California “Green Sticker” and “Red Sticker” programs are not recognized within the park.



## Road Conditions

Road conditions vary widely. Dirt roads may be rough. Sandy or muddy roads may be impassable, trapping the unprepared motorist many miles from help. Watch for cattle, burros, and wildlife on roadways.

Not all roads are shown on all maps; traces and illegal shortcuts add to the confusion. Carry a good map and ask a park ranger for current road conditions.

Traveling off pavement within the park is allowed only on existing, open dirt roads. Do not travel cross-country or create new routes. This rule is strictly enforced; citations are issued for violators. Watch for and respect Wilderness Boundary signs; motorized vehicles (and bicycles) are not allowed in Wilderness Areas. Driving in washes is not permitted.

## Your Vehicle

Ensure that your vehicle is in good condition. Check your tires, oil, and gas gauge before you leave. Be prepared for an emergency. Carry a tire jack, tools, towrope, and extra water and fluids for your vehicle.

## Driving tips for sand and mud

- Use low gearing and just enough throttle to maintain forward movement.
- Engage 4-wheel drive before entering deep sand or mud.
- Turn the steering wheel rapidly from side-to-side if you sense a loss of traction. This can help to generate traction.
- Don’t gun the engine. This will spin the tires and dig you down, not forward, and could bury you to the frame. Smooth, easy power is better than too much power.
- If your vehicle gets stuck, put solid material such as floor mats under tires to gain traction.
- If you are really stuck, it’s best to stay with your vehicle since it is much easier to find than someone traveling on foot. Avoid strenuous activity during the heat of the day. Stay in the shade of your vehicle.

## America the Beautiful Pass series replaces other pass programs

This year, federal recreation passes for different land management agencies have been combined into one series of passes to cover fees at all federal recreation sites. The new America the Beautiful National Parks and Federal Recreational Lands Passes are valid at National Park Service, USDA Forest Service, U.S. Fish and Wildlife Service, Bureau of Land Management, and Bureau of Reclamation recreation areas. It replaces the National Parks Pass, Golden Eagle Passport, Golden Age Passport and Golden Access Passports.

Four passes available through the America the Beautiful pass program:



**Annual Pass:**  
The Annual Pass is available to the general public. Good for 12 months, it provides access to federal recreation sites that charge an entrance or standard amenity fee, such as entrance into a national park. It costs \$80 and can be purchased at federal recreation sites, or by calling 1-888-275-8747 extension 1, or on-line at <http://store.usgs.gov/pass>. The new Annual Pass covers the entrance or standard amenity fee for the cardholder, as well as for as many as three additional adults traveling with the cardholder.



**Senior Pass**  
Available to US residents age 62 or older, the senior pass costs \$10 and never expires. In addition to covering entrance or standard amenity fees, this pass provide a discount on some other fees such as camping and boat launching. The card does not cover or reduce fees charged by concessionaires. The Senior Pass replaces the old Golden Age Passport, which will continue to be honored. Purchase this pass in person at a participating National Park or other federal recreation office.



**Access Pass**  
Free for U.S. residents with permanent disabilities. In addition to covering entrance or standard amenity fees, this pass provides a discount on some other fees such as camping and boat launching. The card does not cover or reduce fees charged by concessionaires. The Access Pass replaces the Golden Access Passport, which will continue to be honored. Obtain this pass in person at a participating National Park or other federal recreation office.



**Volunteer Pass**  
In addition to these three passes, one completely new pass has been added. Volunteers who donate more than 500 service hours in a year earn the reward of a Volunteer Pass, with the same benefits as an Annual Pass, valid for 12 months.

Although Mojave National Preserve does not charge an entrance fee at this time, the passes are available at Kelso Depot Visitor Center and Hole-in-the-Wall Information Center.



# Exploring Mojave

## Kelbaker Road

“At Kelso, we took on supplies and found that Baker lay just across another small range. There was no road or trail, but once we gained the summit, Baker could be seen in the white alkali sink below. Thirty-six miles away, just twelve merciless hours of walking; and on Armistice Day 1936 we stumbled wearily into Baker.”  
–Edna Calkins Price, Burro Bill and Me

Today, Kelso and Baker are connected by Kelbaker Road, a paved road that extends south of Kelso to I-40. The 57 mile drive from I-15 at Baker to I-40 east of Ludlow winds past cinder cones, lava flows, the Kelso Depot, the Kelso Dunes, and the Granite Mountains.

Cinder Cones & Lava Flows – 14 miles south of Baker. No signs or services.

Kelbaker Road cuts through an area of thick lava flows intermixed with more than 30 volcanic cinder cones covering an area of 25,600 acres, creating an eerie red-black moonscape. These cones and lava flows are thought to range in age from 10,000 to 7 million years.

In 1973, the area was designated as Cinder Cones National Natural Landmark because of its scenic beauty and exceptional geological value.

Aiken Mine Road (19.5 miles south of Baker) offers an interesting side trip through the heart of the area. High clearance and/or 4x4 vehicles recommended.

Kelso Depot – 34 miles south of Baker. Information Center, exhibits, restrooms, water, picnic tables. Hours listed on page 2.

Built in 1924, the Kelso Depot served as train station, restaurant, and employee housing on the Los Angeles and Salt Lake route of the Union Pacific Railroad. The building is now the park’s principal information center and museum. Extensive exhibits describe desert ecosystems, places, people, and history. Historically furnished rooms provide a glimpse into Kelso’s past. Rangers show a 12 minute orientation film in the theater.

Kelso Dunes – 43 miles south of Baker, then 3 miles west on a graded dirt road. The dunes are closed to vehicles, but are open to foot traffic. Trailhead, vault toilets, no water.

Kelso Dunes were created by winds carrying sand grains from the dried Soda Lake and Mojave River Sink located to the northwest. In the path of these winds are the Providence and Granite Mountains, barriers that trapped the blowing sand. The entire dune system was created over a 25,000 year time period. The dunes are nearly 700 feet high and cover a 45 square mile area. Most of the sand grains are made of light-colored quartz and feldspar, which give the dunes an overall golden appearance.

The Kelso Dunes are “booming dunes.” They produce a low rumbling sound when sand grains slide down the steep slopes. Sand must have the right moisture content to “boom.” Try running downhill to initiate the booming sound.

Granite Mountains – 50 miles south of Baker on Kelbaker Road.

An imposing jumble of granite marks the south entrance to the Preserve on Kelbaker Road. Portions of the Granite Mountains lie within the University of California’s Desert Research Center; respect the fencing that marks the boundary.



Enticing to children of all ages, granite rock piles abound across Mojave National Preserve.

## Zzyzx

Zzyzx/Soda Springs – 6 miles west of Baker on I-15, then 4 miles south on Zzyzx Road (gravel). Vault toilets, non-potable water, picnicking, nature walk.

Historically known as Soda Springs and later renamed Zzyzx (pronounced Zye-Zix), this oasis is home to the California State University Desert Studies Center. the buildings and pond were developed in the 1940s by Curtis Springer, who operated a health resort at the site. Zzyzx is open to the public–stroll around Lake Tuendae and along the shore of Soda Dry Lake. If classes are in session, be courteous and do not disturb participants.

## Cima Road

Cima Dome & Joshua Tree Forest– Along Cima Road between I-15 and Cima. Teutonia Peak Trailhead, exhibits, 12 miles south of I-15 on Cima Road.

A near-perfectly symmetrical dome rises 1,500 feet above the surrounding desert. Although the top of the dome is located west of Cima Road near the Teutonia Peak Trailhead, this unusual geologic feature is best seen from a distance: try the view looking northwest from 2.5 miles east of Kelso Cima Road on Cedar Canyon Road. One of the world’s largest and most dense Joshua tree forests grows here.

## Cedar Canyon & Black Canyon Roads

Rock Springs – 5.2 miles east of Black Canyon Road on Cedar Canyon Road, then 0.25 mile south on an unmarked dirt road. 4x4 vehicle recommended, or walk in from Cedar Canyon Road. Roadside exhibits.

The spring, nestled in a rocky alcove, was a well-known waterhole for early travelers. Camp Rock Springs, a military “redoubt” established in 1866 to protect travelers and the mail, was one of the most isolated and comfortless army posts in the West.

Mid Hills – 2 miles west of Black Canyon Road on the north end of Wild Horse Canyon Road. Campground, water, vault toilets, trailhead. Not recommended for RVs.

The effects of a fire which swept through here in June, 2005, are still evident. The fire burned through pinyon pine, juniper, and sagebrush.

Hole-in-the-Wall – Just north of the junction of Black Canyon and the south end of Wild Horse Canyon Roads. Information Center (hours listed on page 2), campgrounds, trailhead, restrooms, water, telephone.

Rhyolite cliffs riddled with holes and hollows are the backdrop for Hole-in-the-Wall.

## Clark Mountain

No signs or services. Check detailed maps or ask a ranger for access information. 4x4 vehicles recommended.

The only section of the park north of I-15 is also its highest point at 7,929 feet. A relict white fir grove near the top is one of only three in the Mojave Desert. Rock climbing on existing routes is permitted.

## Nipton, Ivanpah, & Lanfair Roads

Hotel Nipton – 11 miles east of I-15 on Nipton Road. Hotel and store are privately operated; call 760 856-2335 for information.

Built in 1910, this charming hotel on the park boundary reflects the railroad, ranching, and mining history of the small community at Nipton.

Caruthers Canyon – 5.5 miles west of Ivanpah Road on New York Mountains Road, then 2.7 miles north on an unsigned road. Primitive camp area, hiking; no signs or services. 4x4 vehicle recommended.

Caruthers Canyon is located in the rugged New York Mountains which rise above 7,500 feet. Chaparral plants grow here in a botanical “island” left over from wetter times.

Lanfair Valley – Located south of the New York Mountains along Ivanpah and Lanfair Roads. No signs or services. Respect the rights of private property owners.

This high valley shelters an impressive Joshua tree forest and was an early ranching and homesteading center. From 1893 until 1923, the Nevada Southern Railway ran up the valley from Goffs, providing services to homesteaders and ranchers in the valley and the miners in the mountains beyond. Little evidence remains of homesteads that once dotted the valley.

## Piute Springs

6.1 miles west of U.S. 95 on the unmarked Mojave Road, then 3.1 miles west on an extremely rough unmarked dirt road. Trail; no signs or services. 4x4 vehicle recommended.



Wagon ruts from the historic Mojave Road are visible near Piute Springs.

A narrow ribbon of willows, cottonwoods, and rushes thrive along a half-mile section of Piute Creek. Fort Piute, one of a string of military outposts built along the Mojave Road, was located at this water source.

The recently stabilized ruins of Fort Piute are visible. Please respect these ruins. Don’t climb on the foundations; don’t remove rocks or anything else from the area.

# Mojave Road 4 x 4 Route



View from Marl Mountains along the Mojave Road.

“The country, as a whole, seemed a vast volcanic desert–of mountains, canyons, and mesas–and what it was ever made for, except to excite wonder and astonishment, is a mystery to the passing traveler....Water was found only at distances of ten and twenty miles apart...”  
–J.F. Rusling describes his 1866 trip on the Mojave Road in Across America.

Originally a foot trail used by Mojave and other Indians to transport goods from the southwest to trade with coastal tribes such as the Chumash, this route later served the cause of westward expansion. Military forts were established along the route to protect key water sources and provide assistance for travelers. Today it is a popular four-wheel drive road.

The Mojave Road is an east-west route that enters the park near Piute Spring on the east side and on Soda Dry Lake near Zzyzx on the west. Some sections are rough and sandy; 4 x 4 recommended. Roads can become slick, muddy, and impassable after rains. Be sure to inquire about road conditions, especially if you plan to cross Soda Dry Lake.

The Mojave Road Guide by Dennis Casebier provides in-depth history and mile-by-mile descriptions of the road. It is available for purchase at park information centers.



# Camping

## Campgrounds

Two family campgrounds have vault toilets, trashcans, and potable water. There are no hookups, but there is a dump station at Hole-in-the-Wall. Each campsite has a picnic table and a fire ring. No reservations; \$12 per site per night, \$6 for Golden Age/Golden Access Passport holders. The group campground does accept reservations—see below.

### HOLE-IN-THE-WALL CAMPGROUND

Located at 4,400 feet in elevation and surrounded by sculptured volcanic rock walls; there are 35 campsites for RVs and tents, and two walk-in tent sites.

### MID HILLS CAMPGROUND

A fire swept through here in June, 2005, burning over much of the area. Unburned campsites are surrounded by pinyon pine and juniper trees. At 5,600 feet in elevation, Mid Hills is much cooler than the desert floor below. The access road is not paved and is not recommended for motorhomes or trailers; 26 campsites, about 1/3 in unburned areas.

### BLACK CANYON EQUESTRIAN & GROUP CAMPGROUND

Located across the road from Hole-in-the-Wall Information Center, this campground has vault toilets, water, a picnic shelter with tables, fire ring, and corrals. Fee is \$25 per night; call 760-928-2572 for reservations.



above: Mojave yucca and cholla cactus grow near campsites at Hole-in-the-Wall. right: Wildfire in spring, 2005, burned pinyon and juniper at Mid Hills Campground.

## Nearby Camping Areas

Providence Mountains State Recreation Area (Mitchell Caverns), 16 miles north of I-40 on Essex Road, has six campsites with tables and fire rings available on a first-come basis for \$12 per night.

Afton Canyon, 25 miles west of Baker on I-15, has a BLM campground with tables and fire rings for \$6 per night.

Commerical camping is available at Nip-ton and Needles, California.



## Roadside Camping

Roadside car camping is permitted in areas that have been traditionally used for this purpose. Camping tramples vegetation; by picking sites that have already been used for camping, you help protect the desert from further damage. Not all sites can accomodate multiple vehicles; please don't enlarge sites. Do not camp along paved roads or in day-use areas, and stay at least 200 yards from all water sources.



Campfires are allowed in existing fire rings only; or bring a fire pan and pack out your ashes.

## Selected Roadside Camping Areas

### Near Kelbaker Road:

**Rainy Day Mine Site**  
15.2 miles south of Baker on Kelbaker Road, then 0.3 miles northeast on the road to the Rainy Day Mine. 4x4 vehicle recommended; no RVs.

**Granite Pass**  
6.1 miles north of I-40 on Kelbaker Road, just north of Granite Pass, then west on one of several access roads. Campsites are located just north of the granite spires. High clearance vehicle recommended; no RVs.

**Kelso Dunes Mine**  
4 miles west of Kelbaker Road on Kelso Dunes Road, an unpaved road. Many campsites are available 1 mile beyond the marked trailhead near a clump of trees. Roadside camping is not allowed at the Kelso Dunes parking area or anywhere else along the Kelso Dunes Road, except at this site.

### Near Cima Road:

**Sunrise Rock**  
12 miles south of I-15 on the east side of Cima Road. Trailhead for Teutonia Peak Trail is nearby on the opposite side of Cima Road.

### Near Black Canyon Road:

**Black Canyon Road**  
5.2 miles south of Hole-in-the-Wall Information Center on the east side of Black Canyon Road, near rock piles.

### Near Ivanpah and Cedar Canyon Roads:

**Caruthers Canyon**  
5.5 miles west of Ivanpah Road on New York Mountains Road, then 1.5 to 2.7 miles north to campsites. 4x4 vehicle recommended; no RVs.

# Guidelines for Explorers

## Private Property

Private property inholdings are found throughout the Preserve. Please respect the rights of our neighbors. It is your responsibility to receive permission before hunting, hiking, or entering private property.

## Cattle and Fences

Most grazing within Mojave National Preserve occurs on public land. This land is open to you to explore, but please don't disturb cattle, fences, or water tanks. Leave gates as you find them.

## Pets

Pets must be confined to a leash no longer than six feet at all times, with the exception of dogs used while hunting. Dogs used for hunting must be under the owner's control at all times. Do not leave pets unattended inside or outside of vehicles.

## Bicycles

Bicycles are allowed on dirt and paved roads, but are not allowed on hiking trails unless they are former roads. Bicycles are not allowed in Wilderness Areas or for cross-country travel.

## Collecting and Vandalism

Disturbing, defacing, or collecting plants, animals, rocks, historic or archaeological objects is prohibited. These are part of our national heritage, and should be left as you found them for all to enjoy. Metal detectors are not allowed.

## Firewood & Campfires

Wood is scarce in the desert. Cutting or collecting any wood, including downed wood, is prohibited. All firewood, including kindling, must be brought in.

Campfires are allowed in fire rings in campgrounds and other established sites. To minimize your impact even more, use a firepan and pack out the ashes. Please do not leave fires smoldering or unattended.

## Firearms

Target-shooting or "plinking" is not allowed within Mojave National Preserve.

Possession or use of firearms is prohibited, except during lawful hunting activities. A valid hunting license and appropriate tags are required. Do not shoot within 150 yards of any development (campgrounds, visitor centers, residences, etc.). Please remove all spent shells.

Firearms must be unloaded and cased within campgrounds and vehicles at all times.

Possession and use of fireworks or model rockets is not allowed.

## Safety

Let someone know your trip route, destination, and return date, vehicle make and license plate. Cell phone coverage is sporadic.

Take a minimum of one gallon of water per person per day (two gallons if you are hiking), and drink it freely. Carry extra drinking water for emergencies.

Carry plenty of food, sunscreen, proper clothing, and a first aid kit with you at all times. Hikers should wear a hat and sturdy shoes and carry a good map, sunscreen, plenty of water, extra clothing and a flashlight for after sunset.

Familiarize yourself with the area and learn about desert travel and survival before you begin your exploration. Carry a good map and know how to use it.

## Wilderness

Nearly 50% of Preserve lands have been designated by Congress as Wilderness. These special places offer the chance to escape the sights and sounds of civilization. Exploration on foot or horseback is encouraged; cars and other mechanized vehicles are not allowed. Please watch for and respect Wilderness boundary signs.

## Backcountry Camping Guidelines

Including Roadside Camping, Backpacking, and Horse Camping



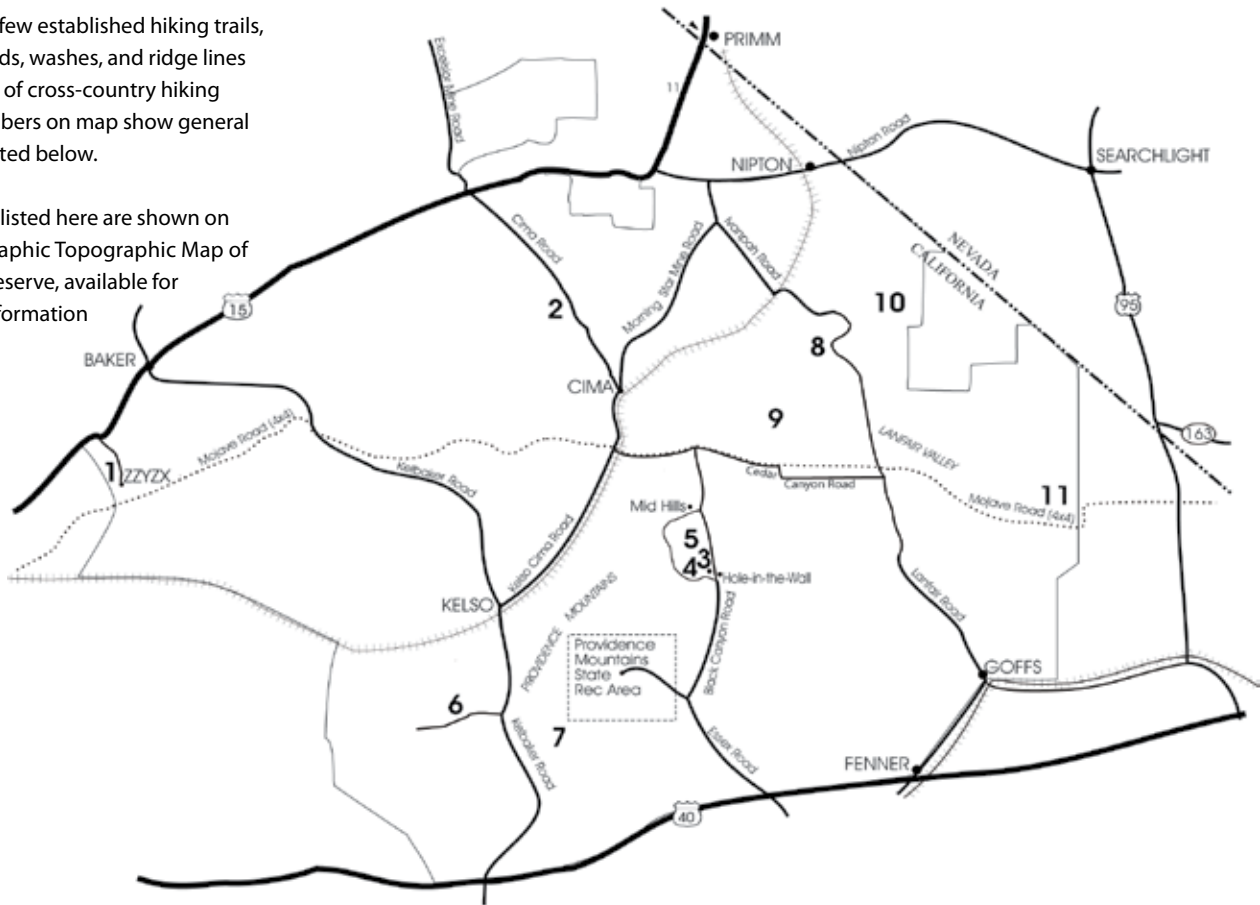
- There is no registration system, so be sure to let someone know where you are going and when you plan to return.
- Backcountry camping is limited to a 14-day stay.
- There are few trails; take a good map and become familiar with the area you are hiking through.
- In the summer, do not set up in a dry wash as flash floods can develop quickly in the desert.
- Carry plastic bags and pack out all of your trash.
- Bury human waste in "cat" holes six inches deep. Don't bury your toilet paper; put it in a plastic bag and pack it out.



# Hiking

Although there are few established hiking trails, abandoned dirt roads, washes, and ridge lines offer an abundance of cross-country hiking opportunities. Numbers on map show general locations of trails listed below.

All trails and routes listed here are shown on the National Geographic Topographic Map of Mojave National Preserve, available for purchase at park information centers.



## Developed Trails

1) Lake Tuendae Nature Trail – 0.25 miles round trip. Trailhead at Zzyzx parking area, 4 miles south of I-15 on Zzyzx Road.

Stroll around Lake Tuendae and learn about its importance to the natural and cultural history of the area.

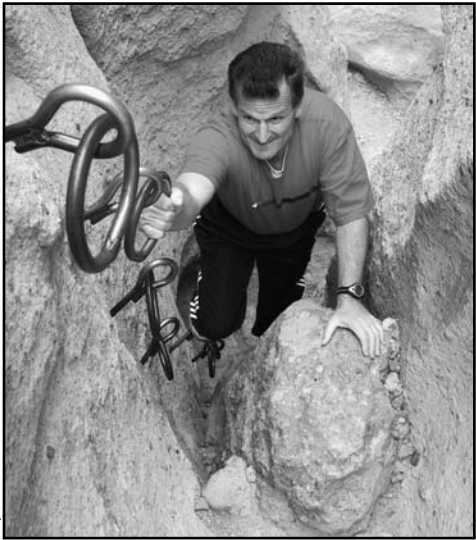
2) Teutonia Peak Trail – 4 miles round trip. Trailhead 12 miles south of I-15 or 6 miles north of Cima on Cima Road.

Explore the dense Joshua tree forest on the way to a rocky outcropping on Cima Dome.

3) Hole-in-the-Wall Nature Trail – 0.5 mile round trip. Trailheads at Hole-in-the-Wall Information Center and Campground.

Learn to identify desert plants as you walk between the campground and information center.

4) Rings Trail – 0.5 mile round trip. Trailhead at picnic area 0.2 mile northwest of Hole-in-the-Wall Information Center. Trail connects to the Mid-Hills to Hole-in-the-Wall Trail.



Descend through Banshee Canyon with the help of metal rings mounted in the rock, and discover the holes of Hole-in-the-Wall.

5) Mid Hills to Hole-in-the-Wall Trail – 8 miles one way. Trailheads at entrance to Mid Hills Campground and about 1 mile west of Black Canyon Road on the south end of Wild Horse Canyon Road.

Hike through a maze of washes decorated with barrel and cholla cacti, then through the Hackberry Fire burned area. Watch carefully for trail route markers. Total elevation gain is 1,200 feet.

## Recommended Routes

Warning: these routes are not established trails. Check a detailed map or consult a park ranger for route information. Maps and guidebooks are available at park information centers.

6) Kelso Dunes – Hike is 3 miles roundtrip. Trailhead is 3 miles west of Kelbaker Road on the well graded but unpaved Kelso Dunes Road. Road is rough with “washboard” in places.

Early morning and late afternoon climbers will appreciate both the rose-colored glow of the dunes and cooler temperatures. The hike may take several hours as you slog through the sand, then slide down the slopes.

7) Quail Basin – Hike is 6.5 round trip. No marked trailhead. Begin hike 12.5 miles north of I-40 on Kelbaker Road, then 1 mile east of Kelbaker Road on an unmarked dirt road. Park at junction with closed dirt road heading south. 4X4 vehicle recommended.

Follow the route to the south to a road that loops around a small valley. After walking the loop, return on via the same route. The route leads past jumble rocks into a small valley of Mojave Yucca and juniper surrounded by granite outcroppings.

8) Keystone Canyon – Hike is 3 miles one way. No marked trailhead. Route begins 18 miles south of Nipton Road on Ivanpah Road, then travel 2.5 miles west on an unmarked dirt road, bearing right at two forks. Bear left at 2.5 miles, then travel a short distance downhill to a parking area. 4X4 vehicle recommended.

Hike the deteriorating closed road into Keystone Canyon up to near the top of the New York Mountains. Continue cross-country to the top of the ridge for views to the west.

9) Caruthers Canyon – Hike is 3 miles one way. No marked trailhead. Route begins at primitive campsites in Caruthers Canyon, 5.5 miles west of Ivanpah Road on New York Mountains Road, then 2.7 miles north on unsigned road. 4x4 vehicle recommended.

Hike through a rocky basin to an abandoned gold mining area. Do not enter mine shafts or climb on abandoned structures; they are unstable and extremely dangerous.

10) Castle Peaks Corridor - Hike is 4 miles one way. No marked trailhead. Isolated area; requires 15 miles of rough dirt road driving. Hike begins 4.9 miles east of Ivanpah Road on signed Hart Mine Road; left at fork, then 0.9 miles, left at fork, then 3.4 miles, crossing an earthen berm; left at fork, then 1 mile more to where road ends. 4x4 vehicle recommended.

Walk up the closed road to the ridgetop and beyond into a small canyon. Excellent views of Castle Peak spires. The hiking route is not marked.

11) Piute Creek – Hike is about 5 miles round trip. No marked trailhead. Hike begins on a hill 9.5 miles east of the junction of Lanfair Valley and Cedar Canyon Roads on a dirt utility road, then 0.5 miles north. 4x4 vehicle recommended.

Hike 6.5 miles roundtrip through colorful Piute Gorge and explore the ruins of Fort Piute, one of several military redoubts built and manned in the 1860s to protect mail and travelers on the Mojave Road. Return to your vehicle by following a now-unused trace of the Mojave Road. A perennial stream near Fort Piute, rare in the Mojave, supports riparian plants and animals. You will see stream-side plants recovering after a fire swept through in August, 2004.

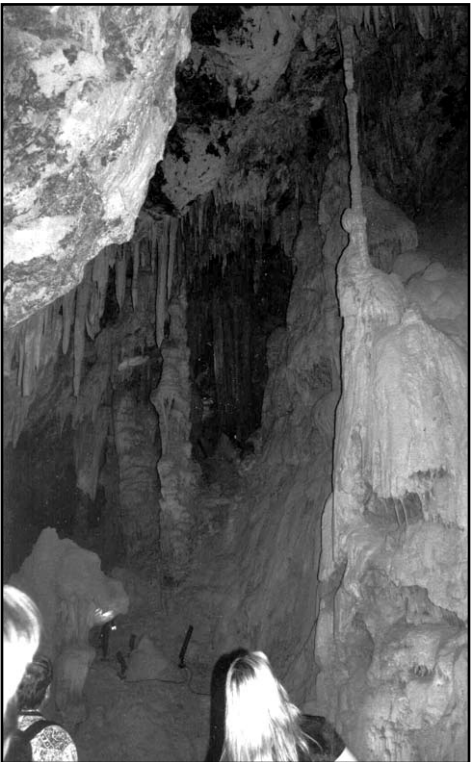
## Providence Mountains State Recreation Area Trails

All trails begin near Mitchell Caverns headquarters, 6 miles west of Black Canyon Road on Essex Road.

Nina Mora Trail – 0.5 miles round trip. Path begins at east end of campground, travels over a ridge dotted with cactus and yucca, and past the grave of Nina Mora, a Mexican silver miner’s daughter who died near here, and on to a viewpoint.

Crystal Spring Trail – 2 miles round trip. Steep trail passes through Crystal Canyon, a limestone and rhyolite rock gorge with castle-like formations. Cross slopes of pinyon and juniper mixed with barrel and prickly pear cactus, with excellent views of Providence Mountain Peaks nearby and the Clipper Valley below.

Mary Beal Nature Study Trail – 0.5 mile round trip. Booklet keyed to trail offers an introduction to high desert flora. The trail honors Mary Beale, an early desert botanist.



State park rangers conduct regularly scheduled tours of Mitchell Caverns.

## Mitchell Caverns: A State Park within Mojave National Preserve

STALACTITES, STALAGMITES, HELICTITES, shields, and draperies are but a few of the formations inside Mitchell Caverns at Providence Mountains State Recreation Area. Located south of Hole-in-the-Wall in Mojave National Preserve, this 5,900 acre California State Park offers cave tours, camping, and hiking in the spectacular Providence Mountains.

**TOURS**  
Guided tours of Mitchell Caverns require a 1½ mile walk and last about 1½ hours. Tour size is limited to 25 people. From Labor Day Weekend through Memorial Day, weekday tours start at 1:30 p.m.; weekend and holiday tours start at 10:00 a.m., 1:30 p.m., and 3:00 p.m. Summer tours, from Memorial Day through Labor Day, are offered at 1:30 p.m. daily. The cost is \$4 for adults, and \$2 for children ages 16 to six. No charge for children five and under. Reservations can be made by calling at least three weeks in advance. Groups of ten or more are by reservation only. Reservations are optional for groups smaller than ten. The temperature inside the cave is a comfortable 65°F, so dress for the outside weather. Wear sturdy shoes.

**CAMPING AND HIKING**  
At 4,300 feet in elevation, the campground offers superb views of the surrounding desert. Six campsites with tables and fire rings are available on a first come, first served basis for \$12 per night. Water and flush toilets are provided. The Mary Beale Nature Trail, near the Visitor Center, features desert plants and animals along a moderate walk; a trail guide is available. There are two other short trails. Cross-country hikers can reach the peaks of the Providence Mountains. Groups planning to hike cross-country require a free permit from the Visitor Center.

For reservations and additional information, call 760-928-2586.

# Mojave National Preserve

